

Work Order ID 60304

Thursday, July 01, 2010 1:10:02 PM



Page 1

Item ID: D2010-103

Accept



Setup Start



Revision ID:

Stop



Item Name: Mirror Arm, 500

Start Date: 7/1/2010 Start Qty: 6.00



Cust Item ID:

Required Date: 7/8/2010 Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D2010

Rev D

100

0.00



NC BRAKE

Brake NC

Memo

0.00

Brake NC

Punch per Dwg. D2010-103-T1 and Spec Control Dwg D2727
Identify as D2010-103

⇒ m.d 10/07/07

6X

110

0.00



Small Fab

Small Fab

Memo

0.00

Small Fab

1- Bend as per Dwg D2010 using bending Jig D2010-103T2
2- Deburr ends

⇒ m.d 10/07/07

6X

120

0.00



Small Fab

Small Fab

Memo

0.00

Small Fab

1-flare before installling plug as per dwg D2010
2-Install D2057 plug as per Dwg D2010

⇒ m.d 10/07/08

6X

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 60304

Thursday, July 01, 2010 1:10:02 PM



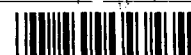
Page 2

Item ID: D2010-103

Accept



Setup Start



Revision ID:

Stop



Item Name: Mirror Arm, 500

Start Date: 7/1/2010 Start Qty: 6.00



Cust Item ID:

Required Date: 7/8/2010 Req'd Qty: 6.00

Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

81062100

16

140

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

0.00



Powdercoat

M112588

Memo

0.00

Powder Coating

START TIME: 8:15
FINISH TIME: 8:45

OVEN TEMPERATURE: 320°

6 BR 10-7-13.

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

=> 10/07/13

6 0

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Thursday, July 01, 2010 1:10:02 PM

Page 3

Item ID: D2010-103

Accept

Setup Start

Revision ID:

Stop

Item Name: Mirror Arm, 500

Start Date: 7/1/2010 Start Qty: 6.00

Cust Item ID:

Required Date: 7/8/2010 Req'd Qty: 6.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursTool ID Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

Identify as per dwg & Stock Location: 220

0.00



Packaging

Memo

0.00

Packaging

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

Rec'd 7/1/10 (Signature) (Stamp)

MF 10-7-14 (Signature)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, July 01, 2010 1:10:06 PM

Page 1

Work Order ID: 60304

Parent Item: D2010-103

Parent Item Name: Mirror Arm, 500

Start Date: 7/1/2010

Required Date: 7/8/2010

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP : F02.08.21 Re-format; Added D2057 KJ/RF
IPP Rev:G 08-05-27 as per ECN1195P DD verified by:EC
IPP Rev:H 08-06-20 rev.D as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M304TR0.500W.049

Purchased

No

100

f

268.4856

1.5

9.473684



304 RD Tube .500 x .049W

Location

Loc Qty

Loc Code

MAT

252.652632

114676 ✓

52.652632

115010

200

MAT017

15.833

111814

15.833

m-k 12/07/07

9.473684

D2057

Manufactured

No

110

Each

19.0000

1

6



Plug

Location

Loc Qty

Loc Code

ST006

19

59215 ✓

19

6x m-k

10/07/08

W/O:		WORK ORDER CHANGES						
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NOTE: Date & initial all entries

SHOP COPY
RETURN TO
ENGINEERING

UNCONTROLLED ITEM

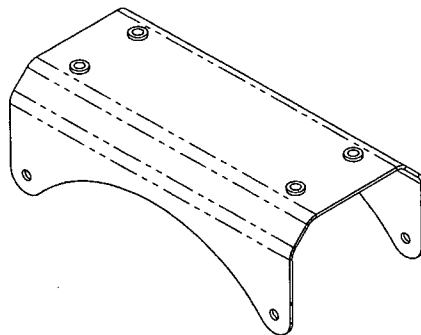
SUBJECT TO AMENDMENT

WITHOUT NOTICE

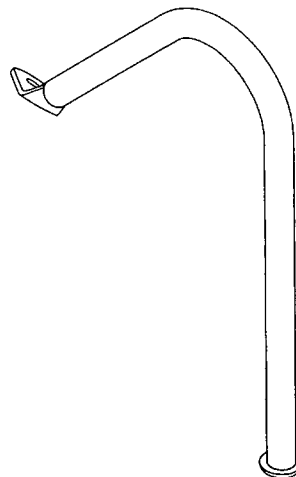
WORK ORDER

NO. 60304

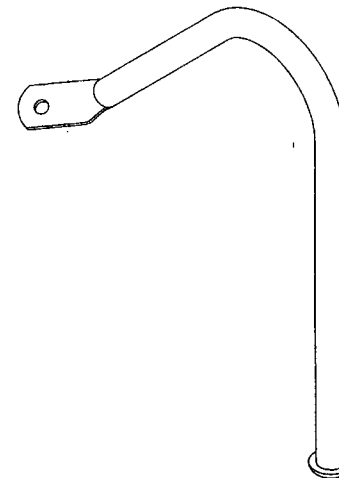
B-10-7-01



D2010-101 MIRROR BRACKET



D2010-103 ARM



D2010-104 ARM

RELEASED
08.06.10

D	REDRAWN IN SOLIDWORKS; ADD D2010-1F FLAT PATTERN FOR D2010-101 (ZN B7-2); Ø0.500 X 0.049 WALL WAS Ø0.500 X 0.035 WALL (ZN B1-3, B1-4); REASON: TUBING CRACKING DURING SERVICE		PH	08.06.10
C	1.93 WAS 2.00; 0.50 WAS 0.62		KE	97.10.31
B	7.90 WAS 10.90		JB	92.03.17
A	NEW ISSUE		JB	90.12.15
REV.	DESCRIPTION		BY	DATE
DESIGN	JB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	PH			
CHECKED		DRAWING NO.	REV. D	
MFG. APPR.		D2010	SHEET 1 OF 4	
APPROVED		TITLE	SCALE	
DE APPR.		MIRROR BRACKET	NTS	
DATE	08.06.10		COPYRIGHT © 1990 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

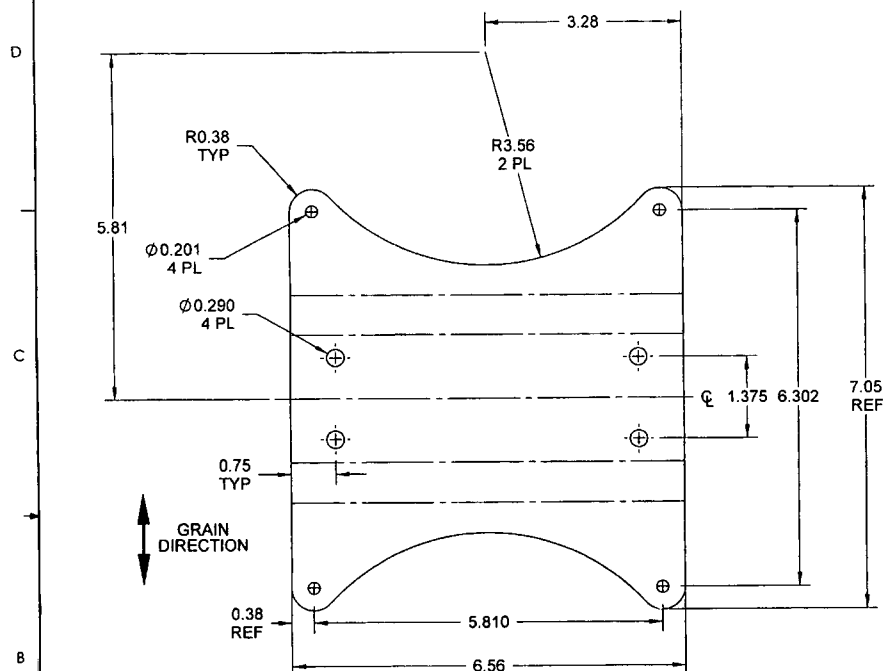
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

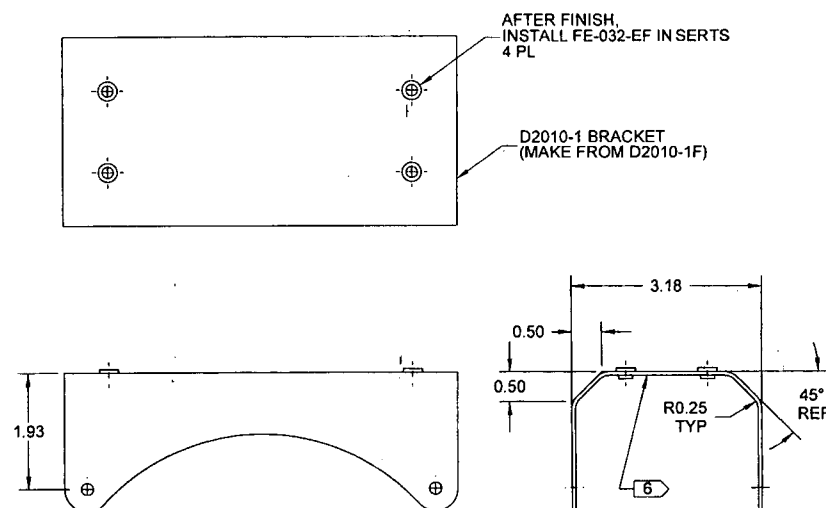
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -101	P/N	DESCRIPTION
X	D2010-101	MIRROR BRACKET
1	D2010-1	BRACKET
4	FE-032-EF	INSERT



D2010-1F FLAT PATTERN



D2010-101 MIRROR BRACKET

NOTES:

- 1) MATERIAL: D2010-1F: 2024-T3 ALUMINUM SHEET, 0.063 THICK PER AMS-QQ-A-250/4 OR AMS 4037 (REF DART SPEC M2024T3S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2010-101" USING WHITE FINE POINT PERMANENT INK MARKER OR LABEL
- 7) WEIGHT: 0.23 lbs

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MFG. APPR.	JB	D2010	SHEET 2 OF 4
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08-06-10/10

W/O 60304

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

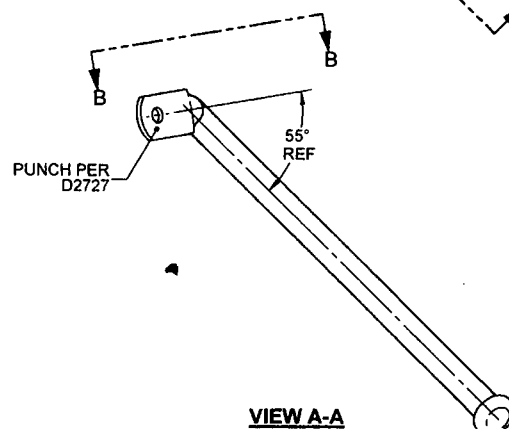
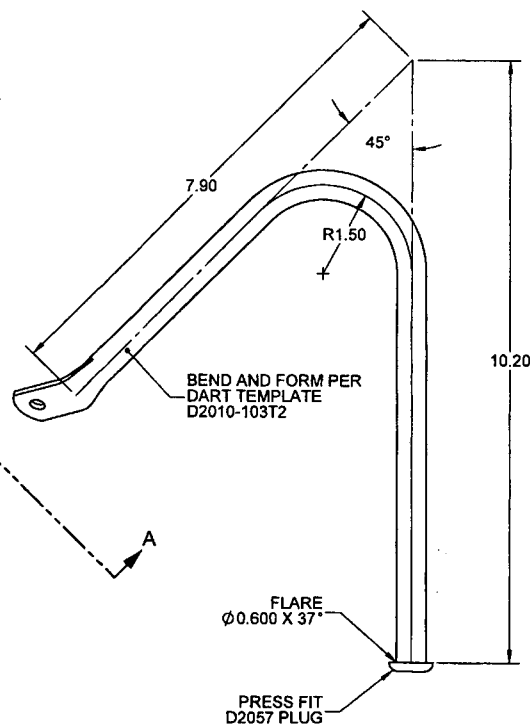
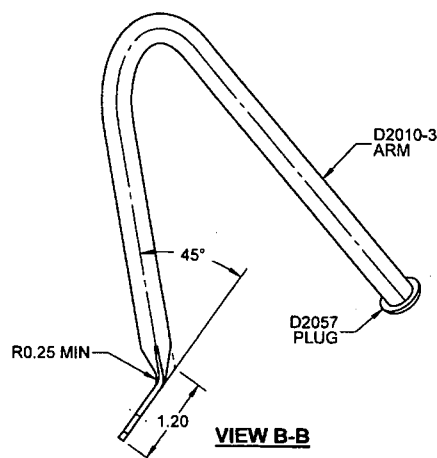
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

QTY -103	P/N	DESCRIPTION
X	D2010-103	ARM
1	D2010-3	ARM
1	D2057	PLUG



D2010-103 ARM

- NOTES:**
- 1) MATERIAL: D2010-3: AISI 304/316 SS SEAMLESS ROUND TUBING, $\phi 0.500 \times 0.049$ WALL (REF DART SPEC M304TR0.500W.049) Δ
 - 2) FINISH: POWDER COAT BLACK SANDEX (4.3.5.7) PER DART QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2010-103" USING WHITE FINE POINT PERMANENT INK MARKER
 - 7) WEIGHT: 0.34 lbs

DESIGN	JB	DART AEROSPACE LTD	
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MFG. APPR.	PH	D2010	SHEET 3 OF 4
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wlb 60304

RELEASED
08-06-10

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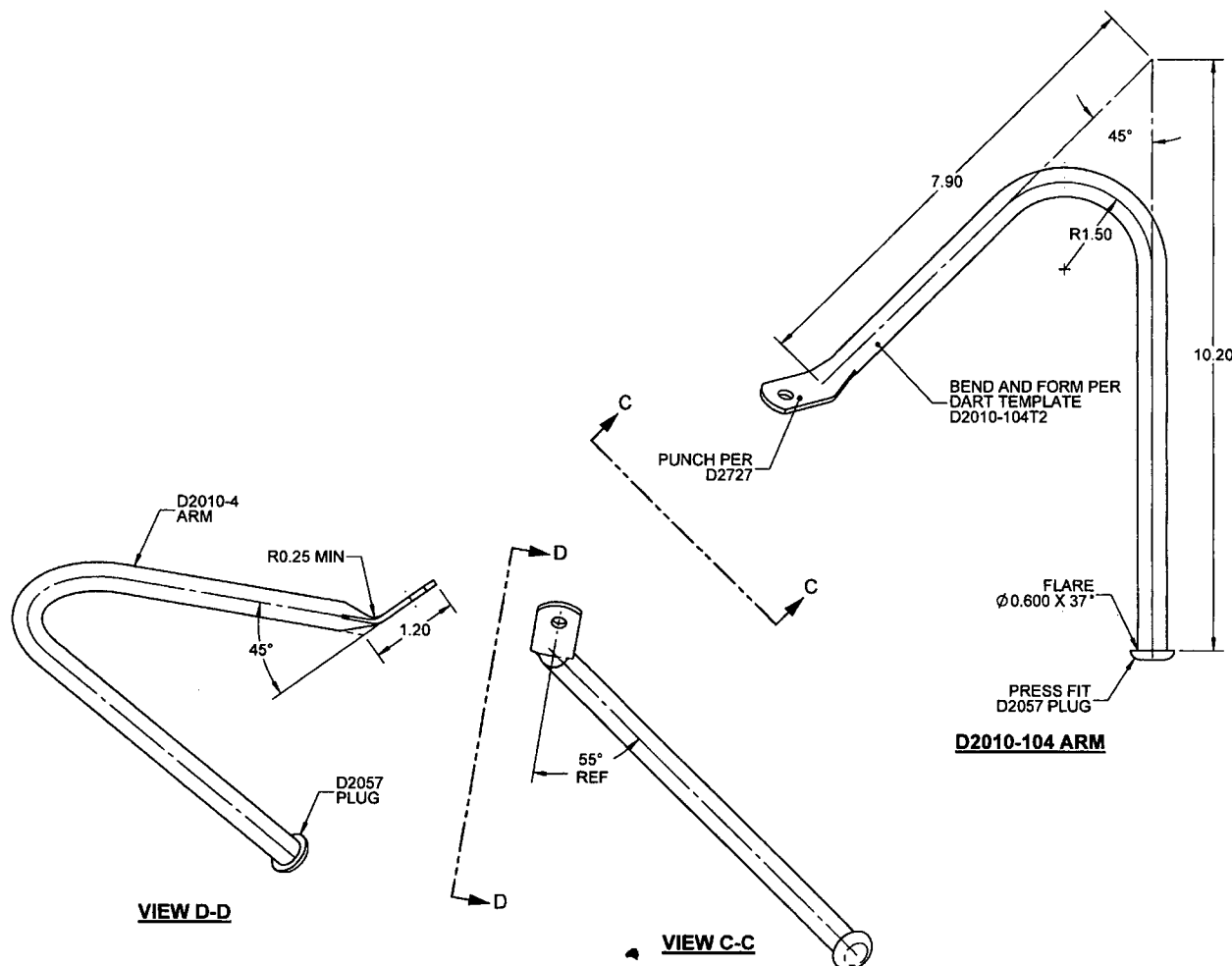
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -104	P/N	DESCRIPTION
X	D2010-104	ARM
1	D2010-4	ARM
1	D2057	PLUG



Wb 60304

RELEASED
08-06-10

- NOTES:
- 1) MATERIAL: D2010-4: AISI 304/316 SS SEAMLESS ROUND TUBING, $\phi 0.500 \times 0.049$ WALL (REF DART SPEC M304TR0.500W.049) Δ
 - 2) FINISH: POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2010-104" USING WHITE FINE POINT PERMANENT INK MARKER
 - 7) WEIGHT: 0.34 lbs

DESIGN	JB	DART AEROSPACE LTD	
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CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.	PH	D2010	SHEET 4 OF 4
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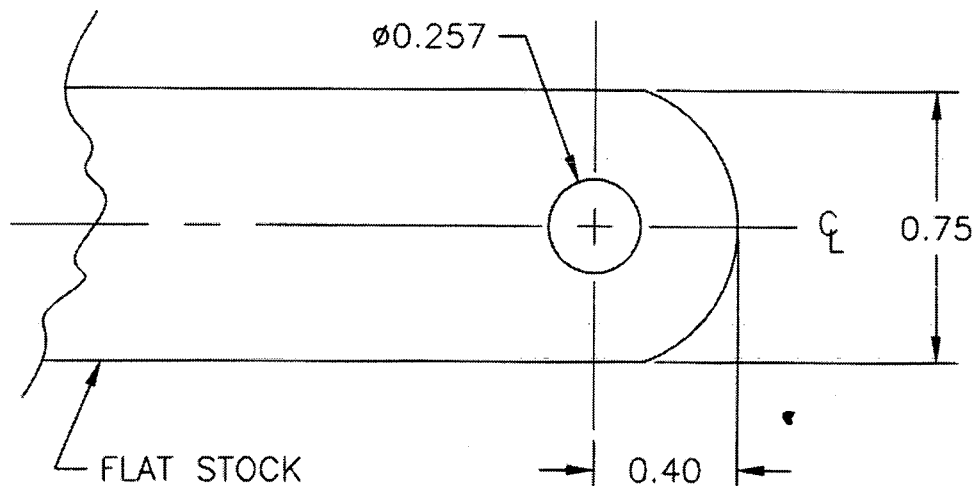
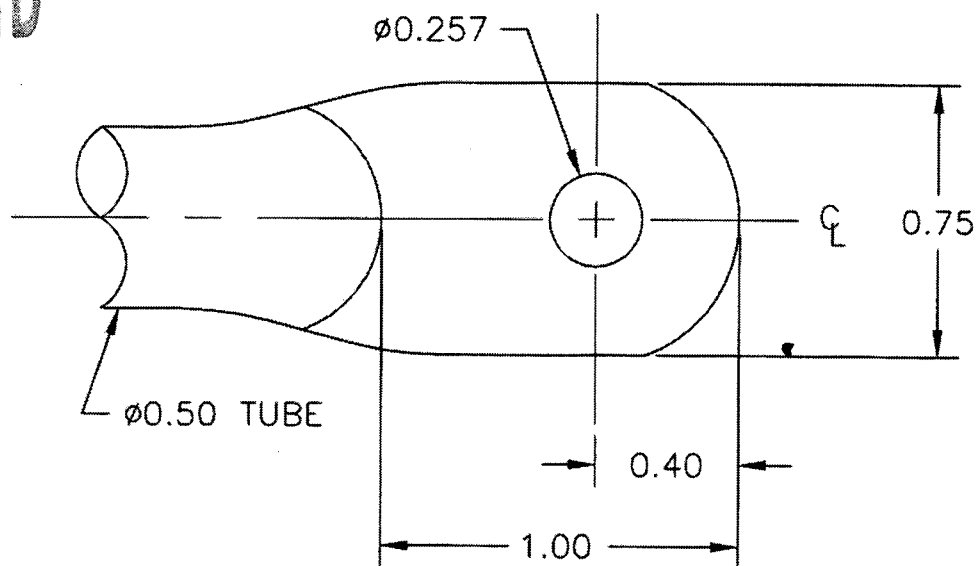
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DESIGN <i>KE</i>	DRAWN BY <i>KE</i>	DART AEROSPACE LTD VICTORIA INTERNATIONAL AIRPORT, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2727	REV. A SHEET 1 OF 1
DATE 97.11.24		TITLE PUNCH DT8012 SPEC CONTROL	SCALE 2:1
A	97.11.24	NEW ISSUE	
A1	<i>#tip</i> 01.12.20	ADD TOLERANCE NOTE	

SPECIFICATION CONTROL DRAWING FOR PUNCH DT8012

RELEASED
98/03/06 *KE*



NOTE: TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

